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QuickGuide to Speedlite 600EX-RT Radio Wireless Flash Setup

INTRODUCTION

The Speedlite 600EX-RT allows you to set up multiple Speedlites as “slaves” which are wirelessly controlled and synchronized by a “master” unit. As compared to flash units that use optical signals only, the 600EX-RT’s radio-based wireless E-TTL offers significant advantages, such as the freedom to place 600EX-RT slave units up to 98 feet from the camera and “master unit”, all without a direct line-of-sight between the master and slaves. Your wireless radio setup options include:

- Automatic E-TTL with equal output from all units
- Automatic Ratio E-TTL with unequal (ratio) output between firing groups
- M – Manually-set power output (you can set a different flash output for each slave unit or firing group)
- GR – Different groups have different flash modes, with up to five groups

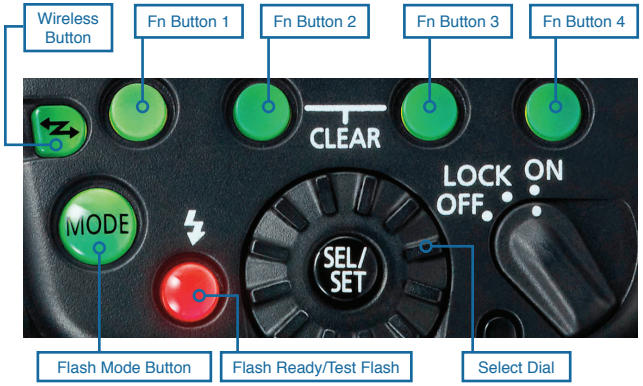
Only a 600EX-RT or ST-E3-RT Speedlite Transmitter attached to a camera can be a master. You can, however, use two or more master units by setting up multiple cameras, each with a master unit attached, and switch from one to another during a wireless flash shooting session. The slave lighting setup will remain the same. Only 600EX-RTs can be slaves when you are shooting in radio control mode.

COMPATIBILITY

EOS cameras released since 2012 (such as EOS-1D X, EOS 5D Mark III, EOS 6D, and EOS Rebel T4i) – full compatibility
EOS cameras released before 2012:

- Flash sync speed must be one stop slower than the maximum
- No high-speed sync shooting
- No group (GR mode) flash

Note: Full flash sync, including Hi-Speed Sync, is available with the 600EX-RT with all EOS SLRs when used in optical wireless E-TTL control mode.



INITIAL WIRELESS RADIO FLASH SETUP

You must first set the master and slaves to matching transmission channels and wireless radio IDs. Once you have done so, any settings you make to the master will automatically be transmitted to the slaves. This eliminates the need to adjust the slaves individually and manually.

1. To set the master unit: Press the Wireless Flash Button until the RT icon (upper-right corner of the unit’s LCD screen) and <MASTER> appear.
   The wireless flash cycle via button is: Conventional on-camera flash > Radio-based Master unit > Radio-based Slave unit > Optical-based Master unit > Optical based Slave unit.
2. To set the slave unit(s): Press the Wireless Flash Button until the RT icon and <SLAVE> appear.
3. To set the transmission channel: Set the master and slave units to the same Transmission Channel, otherwise the slave(s) will not fire. Use the same procedure below for master and slave.
   a. Press Fn Button 4 until <MENU 3> displays.
   b. Press the channel button (Fn Button 1, under the “CH” icon). The channel number will highlight immediately below RT icon. Turn the selector dial to the channel number of your choice (1 to 15) or AUTO. If you set AUTO, the 600EX-RT will automatically set the channel with the best reception. Set the master and slave units to the same Wireless Radio Channel.
   c. Press Fn Button 4 until <MENU 3> displays.
   d. Press Fn Button 2 to highlight ID.
   e. Turn the Select Dial to the digit you want to set. There are four digits.
   f. Press the Select/Set Button to activate the digit setting.
   g. Turn the Select Dial to set any digit from 0 to 9, then press the Select/Set Button to register your setting.
   h. Repeat steps e – g to enter a four-digit number. You can enter any number from 0000 – 9999. The master and slave units must be set to same ID number. The number you set must be different from that of any other 600EX-RT shooter in the vicinity.
   i. Press Fn Button 4 to return the flash to shoot-ready mode.
   j. The <LINK> lamp should light green to indicate a working link between the master and slave, assuming both are turned on and set to same Channel/ID.
   - If you are using more than one master, the color of the <LINK> lamp will vary depending on the order in which you turn the masters on. The first/main master is green. Subsequent/sub-masters are orange.
   - If the LINK lamp is continuously red, check to make sure the master and slave are set to the same channel and ID.
   - If the LINK lamp is blinking red, either your setup totals more than 16 units or you may need to turn the power off and on again.

MASTER FLASH FIRING ON/OFF

You can choose whether master flash firing is ON and therefore the master contributes to the flash exposure, or OFF and does not. The master flash will still control the slaves, regardless of whether it contributes to the exposure.

1. Press Fn Button 4 until Menu 2 displays.
2. Press Fn Button 1 (under Flash On/Off icon) to ON or OFF
   a. Three little beam lines coming from flash icon on LCD panel indicate Master Flash ON
   b. Beam icons disappear when Master Flash OFF is active

WIRELESS E-TTL — “ALL” (FLASH RATIO OFF)

In this mode all flash units will fire at the same output, with full E-TTL auto flash exposure, which you can adjust with flash exposure compensation (FEC) on your camera, as necessary. This mode is best for lighting setups where you want even lighting throughout the scene. E-TTL is also great when flash-to-subject distances may change from shot to shot.

1. Perform the initial flash setup described above. Confirm that master and slave are set to the same transmission channel and radio ID. Position the camera and flash within correct operating range (30 meters/98 feet.)
2. Set the firing group on each slave unit. Set the slave unit to firing group A, B, or C. The slave will not fire if set to group D or E, when ratio control is set to ALL. You can assign multiple flash units to the same group.
3. Set the master to radio-based Wireless E-TTL. Press the <MODE> button on the master unit to set the master to E-TTL.
4. Set the Ratio to “ALL” — On master unit, press Fn Button 4 (under “Menu 1” icon) until Menu 2 appears. Press Fn Button 2 (under “Ratio” icon) until “ALL” appears on master unit’s LCD panel.
5. Confirm wireless link. Confirm that the <LINK> lights on the 600EX-RT’s are lit and green and that the AF-assist beam emitter on the slave is blinking at 1-second intervals. Also confirm that the red flash ready light is lit on the master unit.
6. Shoot.
   a. Press the test flash button on the master flash to check operation. If a slave does not fire, make sure it is within the correct range.
   b. Take the picture. The flash exposure confirmation lamp will light for 3 secs to confirm normal exposure.

c. The master flash's flash-ready light will illuminate when all flash units have recycled. You can enable C.Fn-20 on the master unit to also trigger an audible beep when the slaves have recycled.

WIRELESS E-TTL WITH RATIO CONTROL

In this mode you can divide the slave units into different firing groups (A:B or A:B C) and control the flash ratio (relative output) between them. You can then adjust the overall brightness with flash exposure compensation (FEC) on your camera, as necessary. This mode is best for lighting setups where the flash-to-subject distance may change from one shot to the next and you wish to maintain consistent output ratios between flash units.

1. Perform the initial flash setup described above. Confirm that master and slave are set to the same transmission channel and radio ID. Position the camera and flash within correct operating range (30 meters/98 feet).
2. Set the firing group on each Speedlite 600EX-RT slave unit:
   a. With Menu 1 displayed on a slave unit's LCD panel, press Fn. Button 3 on the master unit (under the "GR" icon).
   b. Set one unit to <A> and at least one slave unit to <B> (do not set a slave unit to "D" or "E", since it won't fire in those settings).
3. Set the ratio on the master unit:
   a. Press the master unit's Fn Button 4 to display <Menu 2>.
   b. Press Fn Button 2 (under the "Ratio" icon), to toggle between <ALL>, <A:B> or <A:B C>.
   Note: A:B requires a minimum of two units. A:B C requires a minimum of three. In either case, you can adjust the power ratio only between groups A and B. Group C is independent of A and B, and is best used for background or accent lighting, rather than lighting the main subject.
   c. Press Fn Button 3 under the "GR" icon.
   d. Press Fn Button 3 again to display <A:B ±>, and highlight the ratio scale.
   e. Turn the Select Dial to set the flash ratio, then press the Select/Set Button.
   f. Press Fn Button 4 to return to shoot-ready mode.

All flash ratios are expressed as A relative to B and as relative amounts of exposure. For example, "1:1" means firing groups A and B will produce equal output, "2:1" means A will produce twice as much output (one stop more) than B, "1:2" means B will produce twice as much output as A, and "8:1" means A will produce eight times (3 stops) more output than B.

E-TTL GENERAL NOTES

1. Flash coverage is set to 24mm by default when the Speedlite 600EX-RT is set for wireless operation. You can manually set the flash head to a more narrow angle of coverage if you wish.
2. Press the depth-of-field preview button on the camera if you want to fire the modeling flash.
3. If you've set Master Flash ON, the master unit is always part of the A Group—no exceptions.

4. When set for radio-based wireless flash, the master flash unit will enter sleep mode (auto power-off) after 5 minutes of inactivity. Activative Speedlite 600EX-RT Custom Function 01-1 if you wish to disable sleep mode on the master unit.
5. If a slave enters sleep mode, press the master unit's test flash button to turn the slave back on. Slave units, by default, stay active for 60 minutes before auto power-off. You can use Flash C.Fn 10-1 to change this to 10 minutes to conserve slave unit battery power.
6. The following flash settings are available during radio-based Wireless E-TTL (set on the master unit):
   - Flash exposure compensation
   - Flash exposure bracketing
   - Flash exposure lock
   - High-speed sync
   - Manual flash
   - Stroboscopic flash

WIRELESS MANUAL FLASH

In this mode you set each slave unit to a fixed output and set the camera exposure manually. You can set each unit to the same or a different output. This mode is ideal for lighting setups where the flash-to-subject distance is fixed and you want your exposure setting to be consistent from one shot to the next—for example, when you are photographing subjects whose color and reflectivity are variable.

1. Perform the initial flash setup described above. Confirm that master and slave are set to the same transmission channel and radio ID. Position the camera and flash within correct operating range (30 meters/98 feet).
2. Use the Mode button to set the flash mode to <M> on the master unit.
3. Set the firing group ratio on the master unit. While <MENU 1> is displayed, press Fn Button 2 (under "Ratio" icon) to the output ratio of your choice. Your options are:
   a. ALL (NO RATIO — EQUAL OUTPUT)
   b. A/B (RATIO A:B)
   c. A/B/C (RATIO A:B:C)
   All ratios are between firing group.
4. Set each slave unit to a particular Group. With Menu 1 on the slave unit's LCD panel, press Fn Button 3 (under "GR" icon) and set each unit to "A", "B" or "C". (If set to "D" or "E", they won't fire in A:B or A:B:C ratio settings.)
5. Set the manual power level you want for each flash group. On the master unit, press Fn Button 3 <GR>, turn the Select Dial, and select the group for which you want to set the flash output. Select A, B, or C.
6. Set the flash output. Press Fn Button 3 <* ±> again, turn the Select Dial to set the flash output (from full 1/1 power thru 1/128th power), then press the Select/Set Button to register your setting.
7. Repeat steps 5 and 6 to adjust flash power for additional groups

NOTE: Slave units will initially read "E-TTL" in the upper-left corner of their LCD panel. However, if you have set Manual ("M") flash mode on the master unit (Step 2 above), this master will automatically communicate this mode to each connected slave unit when you take your first photo.

GR: DIFFERENT FLASH MODE FOR EACH GROUP

The mode is available only on EOS cameras released since 2012 (such as the EOS-1D X, EOS 5D Mark III, and EOS 6D). GR mode is best suited to advanced photographers who have experience in multiple flash lighting. You can set a different flash mode for each firing group, up to a maximum of five groups (A/B/C/D/E). The available modes include:

- E-TTL
- Manual
- Auto external flash metering

1. Perform the initial flash setup described above.
2. Set the flash mode to <Gr> on the master unit.
3. Assign each slave unit to a firing group (A, B, C, D, or E).
4. Set the flash mode on the master unit for each firing group.
   a. While <MENU 1> shows on the master unit's LCD, press Fn Button 3 <GR>, then turn the Select Dial to a group.
   b. Press Fn Button 2 <* MODE> repeatedly to toggle through available flash modes — E-TTL, M, or ExtA.
   c. Repeat step b on the master unit to set the flash mode for each additional group.
5. Set the flash output or flash exposure compensation amount on the master.
   a. While a firing group is selected, press Fn Button 3 <* ±>
   b. Turn the Select Dial to set the flash function that corresponds to the flash mode, then press the Select/Set Button. For example, set the flash output for M mode, or flash exposure compensation for E-TTL or Ext.A.
   c. If you press Fn Button 2 <* ±> when <Menu 1> is on the LCD, you can set flash exposure compensation for all firing groups (E-TTL or Ext.A only).
   d. Repeat steps a & b to set the flash power of any remaining groups
   e. Press Fn Button 4 to return to the shoot-ready state.

MEMORY FUNCTION

You can save one set of wireless settings to memory and recall them later. This saves time during wireless setups. It's also a quick way to switch from standard flash-on-camera to a commonly-used wireless set-up. The settings vary slightly depending on whether you are setting a master or slave.

1. To access the Memory menu:
   a. On the master unit: Press Fn Button 4 to display <MENU 3>.
   b. On the slave unit: Press Fn Button 4 to display <MENU 2>.
2. To save the settings to Memory:
   a. Press Fn Button 3 <MEMORY>.
   b. Press Fn Button 1 <SAVE>.
3. To access the settings from Memory:
   a. Press Fn Button 2 <LOAD>.